

**ABSTRACT**

*Sub A*

A method and apparatus for transmitting broadcast information in a multi-carrier communication system. The Sync Channel of the multi-carrier system is transmitted a 1.25 MHz channel bandwidth (i.e., over a single carrier), and to specify the preferred channels for the Sync Channel transmission instead of the preferred channels for the entire multi-carrier system. The Sync Channel Message will carry the additional information to indicating the center frequency of a multi-carrier system within a reserved set of frequency bands and indicating the frequency of a single carrier system in the reserved set of frequency bands. Considering the A block of the PCS band again, the preferred channels for Sync Channel transmission can be selected as channels 75, 150 and 225. This selection ensures that one of the preferred channels will always be used by any multi-carrier system regardless the location of its center channel.